

REMARKS

Claims 1-6, 8, 10-13, 15, 17 and 19-30 are pending in this application. Claim 30 is herein amended. Reconsideration of the rejections in view of the amendment and the following remarks is respectfully requested.

Claim Rejections – 35 USC §103

Claims 1-6, 8, 10-13, 15, 17 and 19-30 were rejected under 35 USC §103(a) as being unpatentable over Hasegawa et al (U.S. Patent No. 5,871,587)

Applicant respectfully traverses this rejection.

According to the present invention, the environment level in one chamber is controlled to become the same as the environment level of another chamber. In other words, the present invention controls the environment level of one chamber relative to that of another chamber.

Accordingly, claim 1 recites “a control device electrically connected to the environment sensor, said control device controlling the environment in said at least the other of the first and the second chambers on the basis of a measured value given from said environment sensor in such a manner that the environment of at least a portion on a side of said exposure apparatus becomes the same as the environment of at least a portion on a side of said substrate processing apparatus.”

Claim 5 recites “controlling the environment in an exposure chamber in which said exposure apparatus is provided and which is provided separately from the processing chamber, on the basis of the obtained data in such a manner that the environment of at least a portion in said exposure chamber becomes the same as the environment in said processing chamber.”

Claim 12 recites “controlling the environment in a processing chamber in which said processing apparatus is provided and which is provided separately from the exposure chamber,

on the basis of the obtained data in such a manner that the environment of at least a portion in said substrate processing chamber becomes the same as the environment in said exposure chamber.”

Claim 20 recites “providing a control device which controls said adjusting device on the basis of data regarding the environment in said processing chamber in such a manner that the environment in said exposure chamber becomes the same as the environment of at least a portion in said processing chamber.”

Claim 23 recites “providing a control device which controls said adjusting device on the basis of data regarding the environment in said exposure chamber in such a manner that the environment in said processing chamber becomes the same as the environment of at least a portion in said exposure chamber.”

Claim 26 recites “controlling the environment in the other chamber of the exposure chamber and the processing chamber on the basis of the obtained data in such a manner that the environment of at least a portion in one of said exposure chamber and said processing chamber becomes the same as the environment in the other of said chambers.”

Claim 27 recites “a control device electrically connected to said adjusting device and which controls said adjusting device on the basis of data regarding the environment of at least a portion in said processing chamber in such a manner that the environment in said exposure chamber becomes the same as the environment in said processing chamber.”

Claim 28 recites “a control device electrically connected to said adjusting device and which controls said adjusting device on the basis of data regarding environment of at least a portion in said exposure chamber in such a manner that the environment in said processing chamber becomes the same as the environment in said exposure chamber.”

Thus, independent claims recite a control device for, or a step of, controlling in such a way that an environment level in one chamber to become the same as the environment level of another chamber.

On the other hand, the cited portion in Hasegawa et al reads as follows:

The purity of helium gas within the first chamber 101 may decrease, due to mixture of outside air leaked from any chamber wall junction, for example, or leakage of impurity gas from air bearing means of the wafer positioning stage 121. This causes degradation of exposure precision. In this embodiment, evacuation through the second evacuation line 106 and supply (replenishment) of helium gas through **the second helium gas introducing line 114 are continued to keep the helium purity not lower than 99.9%.**

(Col. 5, lines 48-56). Here, the atmosphere of the exposure chamber is maintained at a certain absolute level (specifically, helium purity of not lower than 99.9%). Another portion in Hasegawa et al describes as follows:

Resist coating process or developing process to be performed in the second chamber 130 do not need helium gas of high purity, as compared with the exposure process to be performed in the first chamber 101. Thus, the exhausted gas from the first chamber is introduced into the second chamber 130 without purification. When the resist coating process with the coater 131 or the developing process through the developer 132 is to be performed, the inside ambience of the second chamber 130 is maintained at an atmospheric pressure or a reduced pressure.

(Col. 6, lines 6-10, emphasis added). The description indicates that the environment level (helium purity) of the first chamber is different from that of the second chamber. Hasegawa et al discusses nothing about a control in such a manner that the environment in one chamber becomes the same as the environment of in another chamber.

Therefore, Hasegawa does not teach or suggest the above recitations of the independent claims.

For at least these reasons, independent claims 1, 5, 12, 20, 23, 26-28, claims 2-5, 6, 8, 10, 11, 13, 15, 17, 19, 21, 22, 24, 25, 29 and 30, depending from one of these independent claims, also patentably distinguish over Hasegawa et al.

Thus, the 35 USC §103(a) rejection should be withdrawn.

In view of the aforementioned amendments and accompanying remarks, Applicant submits that the claims, as herein amended, are in condition for allowance. Applicant requests such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicant's undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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